

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.-7. (Canceled)

8. (New) An integrated process for simultaneous synthesis and crystallization of a compound represented by the formula AcXYNH_2 , wherein X and Y are amino acids and Ac is acetyl, comprising:

(A) solubilizing an aqueous solution of a compound represented by the formula YNH_2 , wherein Y is as defined above, using a mixture comprising alkane and alcohol in the presence of a surfactant to create a first solution, wherein reversed micelles are formed in said first solution;

(B) dissolving a compound represented by the formula AcXOEt , wherein X and Ac are as defined above and Et is ethanol, in a mixture comprising alkane and alcohol to create a second solution;

(C) adding said first and second solutions to a reactor comprising an ultrafiltration membrane and a hydro-cyclone so as to simultaneously synthesize and crystallize said compound represented by the formula AcXYNH_2 ,

wherein the compound represented by the formula AcXYNH_2 is selected from the group consisting of N-acetyl-L-phenylalanine leucinamide, N-acetyl-L-phenylalanine isoleucinamide, N-acetyl-L-phenylalanine valinamide, N-acetyl-L-phenylalanine alaninamide, N-acetyl-L-phenylalanine phenylalaninamide, N-acetyl-L-phenylalanine methioninamide, N-acetyl-L-tyrosine leucinamide, N-acetyl-L-tyrosine isoleucinamide, N-acetyl-L-tyrosine valinamide, N-acetyl-L-tyrosine methioninamide, N-acetyl-L-tryptophan leucinamide, N-acetyl-L-tryptophan isoleucinamide, and N-acetyl-L-tryptophan valinamide.

9. (New) The process of claim 8, wherein said reactor is a batch reactor.
10. (New) The process of claim 8, wherein said reactor is a continuous reactor.
11. (New) The process of claim 8, wherein the formation of AcXYNH_2 is not enzymatic.
12. (New) The process of claim 8, wherein said aqueous solution of step (A) further comprises a protease.
13. (New) The process of claim 8, further comprising re-crystallizing the compound represented by the formula AcXYNH_2 from a solvent so as to purify said compound represented by the formula AcXYNH_2 .

14. (New) The process of claim 8, wherein Y is selected from the group consisting of leucine, isoleucine, valine, alanine, phenylalanine, and methionine.

15. (New) The process of claim 8, wherein X is phenylalanine, tyrosine, or tryptophan.

16. (New) The process of claim 8, wherein said alkane is selected from the group consisting of heptane, octane, isooctane, and a mixture of two or more thereof.

17. (New) The process of claim 8, wherein said alcohol is selected from the group consisting of hexanol, octanol, dodecanol, or a mixture of two or more thereof.

18. (New) The process of claim 8, wherein said surfactant is selected from the group consisting of dodecyl-trimethyl ammonium bromide, tetradecyl-trimethyl ammonium bromide, hexadecyl-trimethyl ammonium bromide, and a mixture of two or more thereof.